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St. Clair Co.-1631000003
St. Louis Auto Shredding
Drum Disposal Site
SF/HRS

US EPA RECORDS CENTER REGION 5



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10/00

CERCLA

Pre-Cerclis Screening Action



Illinois Environmental
Protection Agency

**CERCLA
PRE-CERCLIS ACTION REPORT**

for:

**Saint Louis Auto Shredding Drum Disposal Site
Madison ~~City~~, Illinois**

**PREPARED BY:
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF LAND
FEDERAL SITES REMEDIATION SECTION
SITE ASSESSMENT UNIT**

OCTOBER 2000

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1.0 SITE BACKGROUND

1.1 Site Introduction

In March of 2000, the Illinois Environmental Protection Agency's (Illinois EPA) Site Assessment Program, working in cooperation with the United States Environmental Protection Agency (U.S.EPA) initiated work on a Pre-CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Inventory System List) Screening Action at Saint Louis Auto Shredding Drum Disposal Site, in Madison ~~Cty~~, Illinois (Figure 1). The Pre-CERCLIS Screening Action was designed to identify potentially contaminated sites and determine if their placement onto CERCLIS is necessary. Past investigations identified this site as a potential source of contamination potentially impacting a wetland area. Note: This former drum disposal site is located approximately 0.75 miles north of the Saint Louis Auto Shredding site that is presently list on CERCLIS (ILD 984767392).

1.2 Site Description

Saint Louis Auto Shredders Drum Disposal site occupies the northwest corner of the intersection of the Cahokia Canal and the former Illinois Terminal Electric Railroad grade (see Figure 1). The site is bordered in three side by the Gateway International Golf Course. The main disposal area is an approximate 100 by 150 foot clearing in a wooded area. This clearing is characterized by stressed vegetation, burn residue, and patches of rubbery material. This area

slopes slightly to the west, southwest toward a heavily wooded area. These woods have a definite end point where wetland vegetation begins. These wetlands flow into a series of other wetlands located around the outer perimeter of the golf course. No outlet was observed from any of these wetlands to the canal or other surface water body. The author of this report has concluded that they are an "isolated wetland".

1.3 Site History

The site was discovered by hunters in 1993, walking along the railroad grade north of the site. At that time the site was reported to contain numerous drums turned upside down with no lids. In that same year a privately funded Site Inspection (SI) report found more than 25 drums were present, many were over-turned, had no lids, and were filled with bullet holes. This report also characterized the material in the drums as paint sludge, paint pigments, and an epoxy material. Sampling of these waste streams was conducted at this time. Later the analytical results from the SI, revealed the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and metals. Based on these findings a privately funded drum removal was conducted in the spring of 1996. In 1998, ISGS, collected several samples from the site ranging in depth from 1 foot to 9 feet. Results for several metals including lead, exceeded the TACO, Tier 1 soil remediation levels, RCRA, TCLP, for lead, and had PCBs greater than 50 ppm. In this same year as part of a roadway relocation project the Illinois DOT, tasked Ecology and Environment to perform additional soil characterization of this area. Again this area was found to be heavily contaminated with VOCs, SVOCs, PCBs, and

Metals. As a result of this investigation the site was then referred to the Illinois EPA's CERCLA Site Assessment Unit (SAU).

2.0 FIELD INVESTIGATION ACTIVITIES AND ANALYTICAL RESULTS

2.1 Reconnaissance Activities

In March of 2000, Illinois EPA Site Assessment Unit conducted a reconnaissance visit of the site and met with a representative for the Illinois Department of Transportation and Ecology and Environment. During this visit, potential screening locations at the site and in the wetland area were noted for the collection of sample screening data. During this same visit, Illinois EPA collected information about past and present ownership of the contaminated areas. A representative from Gateway National Golf Links did grant the Illinois EPA access for the screening inspection.

2.2 Analytical Results

On March 30 , 2000, Illinois EPA personnel collected 16 soil/sediment samples for PCB screening using Envirogard immunoassay test kits and performed 78 soil/sediment XRF readings with a Niton 700-Series X-Ray Fluorescence (XRF) device. See Figure 2, for sample locations. XRF screening and PCB analysis of the soil/sediment samples can be found in Table 1.

Several on-site soil readings reported high lead levels. They ranged from 22- 94,000 ppm. The corresponding Removal Action Level (RAL) for lead is 500-1000 ppm. PCBs were

also detected at concentrations greater than 5 ppm.

XRF readings of the sediments in the wetland areas surrounding the drum disposal area reported high lead and zinc levels. Lead levels ranged from 27-1859 ppm and zinc levels were 38-766 ppm. The corresponding sediment screening benchmarks for lead is 47 ppm and zinc 150 ppm. Surface sediment PCB results were in the greater than 1ppm and less than 5 ppm range. The corresponding sediment screening benchmark for PCBs is .023 ppm.

3.0 SITE RECOMMENDATION FOR FUTURE CERCLA ACTIVITIES AND/OR LISTING AND/OR CERCLIS

Screening data collected during Pre-CERCLIS Screening activities indicated elevated levels of several metals (see Table 2) and the presence of PCBs on-site. The lead levels are in excess of the RALs and it is recommended that the site be referred to the USEPA as a potential removal candidate.

Elevated levels of lead, zinc and PCBs were also found to extend into the surrounding wetland areas. All three exceed their sediment screening benchmarks and it is recommended that the site be placed on CERCLIS and advance to the next stage of the CERCLA process.

FIGURE 1, SITE AREA MAP, St. Auto Shredding

Mag 14 C

Wed Nov 22 12:40 2000

Scale 1:31,250 (at center)

2000 Fee

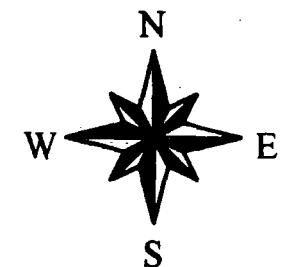
1000 Meters

Be Lake State Park

- Local Road
 — Primary State Route
 ■ Interstate/Limited Access
 — Major Connector
 — State Route
 Exit
 - - - Railroad
 Point of Interest
 Small Town
 Park/Reservation
 Locale
 - + Cemetery
 . County Boundary
 . Water
 . River/Canal

Saint Louis Auto Shredding Drum Disposal Site

FIGURE 2
SAMPLE LOCATION MAP
ST. LOUIS AUTO SHREDDING
DRUM DISPOSAL SITE
L-1631000003 4655002



0.06 0 0.06 0.12 Miles

- Xrf.shp
- Pcbsh.shp

TABLE 1. KEY RESULTS

L1634000003

465500Z

| PPM | | Depth | PCBs | Pb | Pb | Zn | Zn | |
|-------------------------------|----------|----------|-------|---------|-----------|---------|-----------|------|
| Sediment Screening Benchmarks | | | 0.023 | 47 | precision | 150 | precision | |
| XRF No. | PCB No. | matrix | | | | | | |
| 2 | soil | 0-3" | | 7948.8 | 290 | 3080 | 240 | |
| 3 | soil | 0-3" | | NA | NA | 67.35 | 4268.8 | |
| 4 | soil | 0-3" | | NA | NA | 66.6 | 2449.6 | |
| 5 | soil | 0-3" | | 5008 | 190 | 10496 | 390 | |
| 6 | soil | 0-3" | | 1340 | 71.3 | 2468.8 | 140 | |
| 7 | soil | 0-3" | | NA | NA | 44.4 | 1020 | |
| 8 | sediment | 0-3" | | NA | NA | 38.25 | 471.6 | |
| 9 | sediment | 0-3" | | 27.1 | 15.6 | 129.6 | 41.3 | |
| 10 | sediment | 0-3" | | 42.1 | 14.3 | 163.7 | 36.7 | |
| 11 | sediment | 0-3" | | 42 | 14.5 | 202.5 | 39.9 | |
| 12 | sediment | 0-3" | | 56.1 | 19 | 198.6 | 46.9 | |
| 13 | sediment | 0-3" | | 46.6 | 18.6 | 167.7 | 46.3 | |
| 14 | sediment | 0-3" | | 63.4 | 18.6 | 161.3 | 43.2 | |
| 15 | sediment | 0-3" | | 51.6 | 17.8 | 192.5 | 44.9 | |
| 16 | sediment | 0-3" | | 58.1 | 17.5 | 169.9 | 41.8 | |
| 17 | sediment | 0-3" | | 38.3 | 13 | 113.8 | 31.9 | |
| 18 | sediment | 0-3" | | 30.7 | 12.8 | 168.8 | 36.7 | |
| 19 | sediment | 0-3" | | 92.1 | 21.1 | 235.2 | 48.5 | |
| 20 | sediment | 0-3" | | 281.2 | 32.3 | 488.4 | 62.5 | |
| 21 | sediment | 0-3" | | 267.6 | 39.2 | 347.8 | 69.3 | |
| 22 | soil | 0-3" | | 3798.4 | 130 | 1369.6 | 110 | |
| 23 | soil | 0-3" | | 94668.8 | 2699.2 | 65689.8 | 2099.2 | |
| 24 | soil | 0-3" | | NA | NA | 126.15 | 2068.8 | |
| 25 | soil | 0-3" | | NA | NA | 126.15 | 23897.6 | |
| 26 | soil | 0-3" | | 17600 | 460 | 16896 | 550 | |
| 27 | soil | 0-3" | | 12800 | 320 | 12896 | 400 | |
| 28 | soil | 0-3" | | NA | NA | 106.05 | 11596.8 | |
| 29 | soil | 0-3" | | NA | NA | 57.9 | 5228.8 | |
| 30 | soil | 0-3" | | 3148.8 | 110 | 1788.8 | 120 | |
| 31 | soil | 0-3" | | 582.4 | 47.2 | 396.8 | 62.6 | |
| 32 | soil | 0-3" | | 249.6 | 29 | 355.4 | 53 | |
| 33 | sediment | 0-3" | | 138.2 | 24.8 | 248 | 51 | |
| 34 | sediment | 0-3" | | 67.9 | 18.6 | 258.6 | 47.6 | |
| 35 | sediment | 0-3" | | 39 | 15.3 | 166.7 | 40.5 | |
| 36 | sediment | 0-3" | | 30.8 | 15.5 | 245.4 | 46.4 | |
| 37 | sediment | 0-3" | | 49.5 | 18.6 | 207.6 | 48.9 | |
| 38 | sediment | 0-3" | | 34 | 16.6 | 201.5 | 47.1 | |
| 39 | soil | 0-3" | | 15296 | 360 | 5878.4 | 260 | |
| 40 | soil | 0-3" | | NA | NA | 135 | 27084.8 | |
| 41 | soil | 0-3" | | 2659.2 | 100 | 10694.4 | 300 | |
| 42 | soil | 0-3" | | NA | NA | 85.95 | 6508.8 | |
| 43 | soil | 0-3" | | 1689.6 | 72.1 | 770.4 | 72.1 | |
| 44 | sediment | 0-3" | | 164.9 | 22.2 | 664.8 | 61.1 | |
| 45 | sediment | 0-3" | | 88.6 | 17.5 | 236 | 41.4 | |
| 46 | sediment | 0-3" | | 57.3 | 15.2 | 212.6 | 39.2 | |
| 47 | sediment | 0-3" | | 37.9 | 12.7 | 122.5 | 31.7 | |
| 49 | soil | 0-3" | | <LOD | 26.85 | 147.3 | 50.1 | |
| 50 | soil | 0-3" | | 41.7 | 19.3 | 181.3 | 49.8 | |
| 51 | soil | 0-3" | | 44.5 | 22.2 | 270 | 63.5 | |
| 52 | soil | 0-3" | | 71.5 | 26.6 | 258.2 | 67.7 | |
| 53 | soil | 0-3" | | 65.8 | 18.7 | 237 | 47.7 | |
| 54 | soil | 0-3" | | 22.4 | 9.9 | 129.7 | 27.9 | |
| 55 | soil | 0-3" | | 47.2 | 18.6 | 249.8 | 53.5 | |
| 56 | soil | 0-3" | | 39.7 | 14.2 | 282 | 45 | |
| 58 | 1 | sediment | 0-3" | N/A | 80.9 | 16.9 | 365.4 | 47.5 |
| 59 | 2 | sediment | 0-3" | N/A | 85.3 | 20 | 362.8 | 53.6 |
| 60 | 3 | sediment | 0-3" | N/A | 29.4 | 12.4 | 273.8 | 41.5 |
| 61 | 4 | soil | 0-3" | >5 | 14092.8 | 400 | 8800 | 380 |
| 62 | 5 | soil | 6" | >1, <5 | 8595.2 | 280 | 5507.2 | 280 |
| 63 | 6 | soil | 0-3" | >5 | 13196.8 | 390 | 16691.2 | 570 |
| 64 | 7 | soil | 18" | <1 | 314.6 | 39.7 | 3558.4 | 180 |
| 65 | 8 | soil | 0-3" | >5 | 1960 | 150 | 1069.6 | 170 |
| 66 | 9 | soil | 18" | >1, <5 | 1899.2 | 98.1 | 3619.2 | 190 |
| 67 | 11 | soil | 18" | >1, <5 | 1500 | 81.4 | 896.8 | 93.2 |
| 68 | 12 | sediment | 0-3" | >1, <5 | 71.2 | 20.1 | 237.6 | 50 |
| 69 | 13 | sediment | 18" | <1 | <LOD | 27.45 | 114.6 | 45 |
| 70 | 14 | sediment | 0-3" | >1, <5 | 351.8 | 37.4 | 428.8 | 63.3 |
| 71 | 15 | sediment | 18" | <1 | 207.8 | 31.2 | 272.4 | 56.7 |
| 72 | 16 | sediment | 0-3" | >1, <5 | 944.8 | 61 | 631.6 | 75.8 |
| 73 | 17 | sediment | 18" | <1 | 153.7 | 29.4 | 232.6 | 56.1 |
| 74 | 18 | sediment | 0-3" | ND | 152.2 | 21.9 | 313 | 46.4 |
| 75 | 19 | sediment | 18" | ND | <LOD | 25.5 | 133.2 | 51 |
| 76 | 20 | sediment | 0-3" | N/A | 1859.2 | 76.4 | 766.4 | 73.4 |
| 77 | 21 | sediment | 0-3" | N/A | 283.8 | 25.9 | 318.4 | 42.7 |
| 78 | 22 | sediment | 0-3" | N/A | 250.2 | 32.2 | 739.6 | 77.3 |
| 79 | 23 | sediment | 0-3" | N/A | 374.8 | 33.4 | 406.6 | 53.7 |
| 80 | 10 | soil | 0-3" | >5 | 20390.4 | 510 | 5699.2 | 300 |

